

# SEQUENCE LISTING

<110> Crooke, Stanley T.  
Lima, Walter F.  
Wu, Hongjiang

<120> Human RNase H Compositions and Uses Thereof

<130> ISPH-0333

<140>

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<150> 60/067,458

<151> 1997-12-04

<160> 12

<170> PatentIn Ver. 2.0

<210> 1

<211> 286

<212> PRT

<213> Homo sapiens

<400> 1

Met Ser Trp Leu Leu Phe Leu Ala His Arg Val Ala Leu Ala Ala Leu  
1 5 10 15

Pro Cys Arg Arg Gly Ser Arg Gly Phe Gly Met Phe Tyr Ala Val Arg  
20 25 30

Arg Gly Arg Lys Thr Gly Val Phe Leu Thr Trp Asn Glu Cys Arg Ala  
35 40 45

Gln Val Asp Arg Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu  
50 55 60

Asp Glu Ala Trp Ala Phe Val Arg Lys Ser Ala Ser Pro Glu Val Ser  
65 70 75 80

Glu Gly His Glu Asn Gln His Gly Gln Glu Ser Glu Ala Lys Pro Gly  
85 90 95

Lys Arg Leu Arg Glu Pro Leu Asp Gly Asp Gly His Glu Ser Ala Gln  
100 105 110

Pro Tyr Ala Lys His Met Lys Pro Ser Val Glu Pro Ala Pro Pro Val

115

120

125

Ser Arg Asp Thr Phe Ser Tyr Met Gly Asp Phe Val Val Val Tyr Thr  
130 135 140

Asp Gly Cys Cys Ser Ser Asn Gly Arg Arg Lys Pro Arg Ala Gly Ile  
145 150 155 160

Gly Val Tyr Trp Gly Pro Gly His Pro Leu Asn Val Gly Ile Arg Leu  
165 170 175

Pro Gly Arg Gln Thr Asn Gln Arg Ala Glu Ile His Ala Ala Cys Lys  
180 185 190

Ala Ile Glu Gln Ala Lys Thr Gln Asn Ile Asn Lys Leu Val Leu Tyr  
195 200 205

Thr Asp Ser Met Phe Thr Ile Asn Gly Ile Thr Asn Trp Val Gln Gly  
210 215 220

Trp Lys Lys Asn Gly Trp Lys Thr Ser Ala Gly Lys Glu Val Ile Asn  
225 230 235 240

Lys Glu Asp Phe Val Ala Leu Glu Arg Leu Thr Gln Gly Met Asp Ile  
245 250 255

Gln Trp Met His Val Pro Gly His Ser Gly Phe Ile Gly Asn Glu Glu  
260 265 270

Ala Asp Arg Leu Ala Arg Glu Gly Ala Lys Gln Ser Glu Asp  
275 280 285

&lt;210&gt; 2

&lt;211&gt; 293

&lt;212&gt; PRT

&lt;213&gt; Gallus sp.

&lt;400&gt; 2

Met Leu Arg Trp Leu Val Ala Leu Leu Ser His Ser Cys Phe Val Ser  
1 5 10 15

Lys Gly Gly Gly Met Phe Tyr Ala Val Arg Lys Gly Arg Gln Thr Gly  
20 25 30

Val Tyr Arg Thr Trp Ala Glu Cys Gln Gln Gln Val Asn Arg Phe Pro  
35 40 45

Ser Ala Ser Phe Lys Lys Phe Ala Thr Glu Lys Glu Ala Trp Ala Phe  
 50 55 60

Val Gly Ala Gly Pro Pro Asp Gly Gln Gln Ser Ala Pro Ala Glu Thr  
 65 70 75 80

His Gly Ala Ser Ala Val Ala Gln Glu Asn Ala Ser His Arg Glu Glu  
 85 90 95

Pro Glu Thr Asp Val Leu Cys Cys Asn Ala Cys Lys Arg Arg Tyr Glu  
 100 105 110

Gln Ser Thr Asn Glu Glu His Thr Val Arg Arg Ala Lys His Asp Glu  
 115 120 125

Glu Gln Ser Thr Pro Val Val Ser Glu Ala Lys Phe Ser Tyr Met Gly  
 130 135 140

Glu Phe Ala Val Val Tyr Thr Asp Gly Cys Cys Ser Gly Asn Gly Arg  
 145 150 155 160

Asn Arg Ala Arg Ala Gly Ile Gly Val Tyr Trp Gly Pro Gly His Pro  
 165 170 175

Leu Asn Ile Ser Glu Arg Leu Pro Gly Arg Gln Thr Asn Gln Arg Ala  
 180 185 190

Glu Ile His Ala Ala Cys Lys Ala Ile Glu Gln Ala Lys Ser Gln Asn  
 195 200 205

Ile Lys Lys Leu Ile Ile Tyr Thr Asp Ser Lys Phe Thr Ile Asn Gly  
 210 215 220

Ile Thr Ser Trp Val Glu Asn Trp Lys Thr Asn Gly Trp Arg Thr Ser  
 225 230 235 240

Ser Gly Gly Ser Val Ile Asn Lys Glu Asp Phe Gln Lys Leu Asp Ser  
 245 250 255

Leu Ser Lys Gly Ile Glu Ile Gln Trp Met His Ile Pro Gly His Ala  
 260 265 270

Gly Phe Gln Gly Asn Glu Glu Ala Asp Arg Leu Ala Arg Glu Gly Ala  
 275 280 285

Ser Lys Gln Lys Leu  
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<210> 3  
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 <212> PRT  
 <213> Saccharomyces sp.

<400> 3  
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 Gly Ile Tyr Asn Thr Trp Asn Glu Cys Lys Asn Gln Val Asp Gly Tyr  
 20 25 30  
 Gly Gly Ala Ile Tyr Lys Lys Phe Asn Ser Tyr Glu Gln Ala Lys Ser  
 35 40 45  
 Phe Leu Gly Gln Pro Asn Thr Thr Ser Asn Tyr Gly Ser Ser Thr His  
 50 55 60  
 Ala Gly Gly Gln Val Ser Lys Pro His Thr Thr Gln Lys Arg Val His  
 65 70 75 80  
 Arg Arg Asn Arg Pro Leu His Tyr Ser Ser Leu Thr Ser Ser Ser Ala  
 85 90 95  
 Cys Ser Ser Leu Ser Ser Ala Asn Thr Asn Thr Phe Tyr Ser Val Lys  
 100 105 110  
 Ser Asn Val Pro Asn Ile Glu Ser Lys Ile Phe Asn Asn Trp Lys Asp  
 115 120 125  
 Cys Gln Ala Tyr Val Lys His Lys Arg Gly Ile Thr Phe Lys Lys Phe  
 130 135 140  
 Glu Asp Gln Leu Ala Ala Glu Asn Phe Ile Ser Gly Met Ser Ala His  
 145 150 155 160  
 Asp Tyr Lys Leu Met Asn Ile Ser Lys Glu Ser Phe Glu Ser Lys Tyr  
 165 170 175  
 Lys Leu Ser Ser Asn Thr Met Tyr Asn Lys Ser Met Asn Val Tyr Cys  
 180 185 190  
 Asp Gly Ser Ser Phe Gly Asn Gly Thr Ser Ser Ser Arg Ala Gly Tyr  
 195 200 205  
 Gly Ala Tyr Phe Glu Gly Ala Pro Glu Glu Asn Ile Ser Glu Pro Leu  
 210 215 220

Leu Ser Gly Ala Gln Thr Asn Asn Arg Ala Glu Ile Glu Ala Val Ser  
 225 230 235 240

Glu Ala Leu Lys Lys Ile Trp Glu Lys Leu Thr Asn Glu Lys Glu Lys  
 245 250 255

Val Asn Tyr Gln Ile Lys Thr Asp Ser Glu Tyr Val Thr Lys Leu Leu  
 260 265 270

Asn Asp Arg Tyr Met Thr Tyr Asp Asn Lys Lys Leu Glu Gly Leu Pro  
 275 280 285

Asn Ser Asp Leu Ile Val Pro Leu Val Gln Arg Phe Val Lys Val Lys  
 290 295 300

Lys Tyr Tyr Glu Leu Asn Lys Glu Cys Phe Lys Asn Asn Gly Lys Phe  
 305 310 315 320

Gln Ile Glu Trp Val Lys Gly His Asp Gly Asp Pro Gly Asn Glu Met  
 325 330 335

Ala Asp Phe Leu Ala Lys Lys Gly Ala Ser Arg Arg  
 340 345

<210> 4

<211> 155

<212> PRT

<213> Escherichia coli

<400> 4

Met Leu Lys Gln Val Glu Ile Phe Thr Asp Gly Ser Cys Leu Gly Asn  
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Pro Gly Pro Gly Gly Tyr Gly Ala Ile Leu Arg Tyr Arg Gly Arg Glu  
 20 25 30

Lys Thr Phe Ser Ala Gly Tyr Thr Arg Thr Thr Asn Asn Arg Met Glu  
 35 40 45

Leu Met Ala Ala Ile Val Ala Leu Glu Ala Leu Lys Glu His Cys Glu  
 50 55 60

Val Ile Leu Ser Thr Asp Ser Gln Tyr Val Arg Gln Gly Ile Thr Gln  
 65 70 75 80

Trp Ile His Asn Trp Lys Lys Arg Gly Trp Lys Thr Ala Asp Lys Lys

Pro Val Lys Asn Val Asp Leu Trp Gln Arg Leu Asp Ala Ala Leu Gly  
 100 105 110

Gln His Gln Ile Lys Trp Glu Trp Val Lys Gly His Ala Gly His Pro  
 115 120 125

Glu Asn Glu Arg Cys Asp Glu Leu Ala Arg Ala Ala Ala Met Asn Pro  
 130 135 140

Thr Leu Glu Asp Thr Gly Tyr Gln Val Glu Val  
 145 150 155

<210> 5

<211> 216

<212> PRT

<213> Mus musculus

<400> 5

Gly Ile Cys Gly Leu Gly Met Phe Tyr Ala Val Arg Arg Gly Arg Arg  
 1 5 10 15

Pro Gly Val Phe Leu Ser Trp Ser Glu Cys Lys Ala Gln Val Asp Arg  
 20 25 30

Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu Asp Glu Ala Trp  
 35 40 45

Ala Phe Val Arg Ser Ser Ser Ser Pro Asp Gly Ser Lys Gly Gln Glu  
 50 55 60

Ser Ala His Glu Gln Lys Ser Gln Ala Lys Thr Ser Lys Arg Pro Arg  
 65 70 75 80

Glu Pro Leu Val Val Val Tyr Thr Asp Gly Cys Cys Ser Ser Asn Gly  
 85 90 95

Arg Lys Arg Ala Arg Ala Gly Ile Gly Val Tyr Trp Gly Pro Gly His  
 100 105 110

Pro Leu Asn Val Arg Ile Arg Leu Pro Gly Arg Gln Thr Asn Gln Arg  
 115 120 125

Ala Glu Ile His Ala Ala Cys Lys Ala Val Met Gln Ala Lys Ala Gln  
 130 135 140

Asn Ile Ser Lys Leu Val Leu Tyr Thr Asp Ser Met Phe Thr Ile Asn  
 145                      150                      155                      160  
 Gly Ile Thr Asn Trp Val Gln Gly Trp Lys Lys Asn Gly Trp Arg Thr  
                     165                      170                      175  
 Ser Thr Gly Lys Asp Val Ile Asn Lys Glu Asp Phe Met Glu Leu Asp  
                     180                      185                      190  
 Glu Leu Thr Gln Gly Met Asp Ile Gln Trp Met His Ile Pro Gly His  
                     195                      200                      205  
 Ser Gly Phe Val Gly Asn Glu Glu  
                     210                      215

<210> 6  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Synthetic

<400> 6  
 acgctggccg ggagtcgaaa tgcttc 26

<210> 7  
 <211> 28  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Synthetic

<400> 7  
 ctgttcctgg cccacagagt cgccttg 28

<210> 8  
 <211> 29  
 <212> DNA  
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<220>  
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<400> 8  
 ggtctttctg acctggaatg agtcagag 29

<210> 9  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Synthetic

<400> 9  
cttgccctggt ttgcacctcc gattcttgt 29

<210> 10  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Synthetic

<400> 10  
ttgattttca tgcctttctg aaacttccg 29

<210> 11  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Synthetic

<400> 11  
cctcatcctc tatggcaaac ttcttaaata tggc 34

<210> 12  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Synthetic

<400> 12  
gggcgccgtc ggtgtgg 17